SOCIETY OF INTERVENTIONAL RADIOLOGY
Enhanced care through advanced technology™

10201 Lee Highway
Suite 500
Fairfax, Virginia
22030
703.691.1805
703.691.1855 fax
www.sirweb.org
info@sirweb.org

Contact: Diane Shnitzler, RPh 703-460-5582
Emily Oehler Murdoch 703-460-5572
From 3/24-3/30 Call 602-514-7890

EMBARGOED FOR RELEASE: 7 a.m. MST, Monday, March 29, 2004

Study Results of Technique to Treat Deep Vein Thrombosis

Interventional Radiology Clot Busting Treatments Prevent Permanent Leg Damage

Phoenix, Arizona (March 29, 2004) – A study presented today shows that a combination of clot busting drugs infused directly into the clot is an effective interventional radiology technique to treat deep vein thrombosis by breaking up the clot. The study on catheter-directed thrombolysis was presented at the Society of Interventional Radiology's 29th Annual Scientific Meeting. This prospective, 10-year case controlled study of patients enrolled from 1988-1997 compared using the thrombolytic agent urokinase, a clot dissolver, and heparin, a blood thinner, in combination, compared to heparin alone in catheter-directed thrombolysis. The study showed that catheter-directed thrombolysis with urokinase and heparin combined is safe and effective for treating patients with acute DVT. The study included 35 patients with acute DVT and 31 with recurrent DVT and pulmonary embolism. Patients treated with heparin alone during this period served as the case controls. In patients with acute DVT, the urokinase combination therapy decreased post-thrombotic pain compared to heparin alone. Improved quality of life was perceived among the urokinase treated patients, particularly those with recurrent DVT.

Deep vein thrombosis in a deep leg vein can be a very serious condition that can cause permanent damage to the leg vein valves, known as post-thrombotic syndrome. The combination of valve damage and blocked blood flow in the vein from residual thrombus often causes chronic leg pain and swelling, symptoms of post-thrombotic syndrome. The standard initial treatment with blood thinners is important to prevent a life-threatening pulmonary embolism, but does not treat the existing clot. In catheter-directed thrombolysis, the interventional radiologist threads a catheter up the leg vein into the clot, using imaging for guidance, to treat the clot at the source.

Catheter-directed thrombolysis treatment is an established, effective medical treatment that is widely available. It provides relief of pain and swelling and greatly reduces the likelihood of post-thrombotic syndrome, while restoring blood flow in greater than 85 percent of cases.[3,4,5] Catheter-directed thrombolysis, in combination with stenting to keep the vein open to prevent future clotting, are established interventional radiology treatments that are most effective when used on recent blood clots, but can also sometimes be used on older clots, as well.

"After standard treatment with oral or intravenous blood thinners, if symptoms such as leg pain and swelling continue, patients should obtain a consult with an interventional radiologist for further evaluation to see if they might be eligible for catheter-directed

thrombolysis," says Patrica Thorpe, MD, Interventional Radiologist and primary investigator of the 10-year catheter-directed thrombolysis study.

About Post Thrombotic Syndrome

The deep veins that lie near the center of the leg are surrounded by powerful muscles that contract and force deoxygenated blood back to the lungs and heart. One-way valves prevent the back-flow of blood between the contractions. When the circulation of the blood slows down due to illness, injury or inactivity, blood can accumulate or "pool," which provides an ideal setting for clot formation. Recently, it has been referred to as "Economy Class Syndrome" due to the occurrence after sitting on long flights. In the United States alone, 600,000 new cases are diagnosed each year.

The damage to the vein valves causes an abnormal pooling of blood in the leg, chronic leg pain, fatigue, swelling, and in extreme cases, severe skin ulcers. Many patients have to plan their daily activities around their leg, knowing that if they stand or exercise too long, their legs will swell or be painful.

While post-thrombotic syndrome used to be considered an unusual, long-term consequence of DVT, it actually occurs frequently in as many as 60-70 percent of people and can develop within two months of developing DVT. [1,2] There is increasing evidence that clot removal via interventional catheter-directed thrombolysis in selected cases of DVT can improve quality of life and prevent the debilitating sequela of post-thrombotic syndrome. In addition, any narrowing in the vein that might lead to future clot formation can be identified by venography, an imaging study of the veins, and treated by the interventional radiologist with balloon angioplasty or stent placement.

About the Society of Interventional Radiology

An estimated 5,000 people are attending the Society of Interventional Radiology's 29th Annual Scientific Meeting in Phoenix, Arizona. Interventional radiology is the medical specialty devoted to advancing patient care through the innovative integration of clinical and imaging-based diagnosis and minimally invasive therapy. Interventional radiologists are physicians who specialize in minimally invasive, targeted treatments performed using imaging for guidance to treat disease non-surgically through the blood vessels or through the skin. Interventional radiologists pioneered modern medicine with the invention of angioplasty and the catheter delivered stent, which were first used to treat peripheral arterial disease. Interventional radiology procedures are a major advance in medicine that do not require large incisions – only a nick in the skin – and offer less risk, less pain and shorter recovery times compared to open surgery. More information can be found at www.SIRweb.org

Interviews and medical illustrations are available by contacting the press office on site at 602-514-7890.

1. Comerota AJ, Throm RC, Mathias SD, Haughton S, Mewissen M. Catheter-directed thrombolysis for iliofemoral deep venous thrombosis improves health-related quality of life. J Vasc Surg. 2000 July; 32(1):130-7.
2. Saarinen et al. Prospective study of anticoagulated DVT. J Cardiov Surg 2000;41;441-6.
3. Semba CP, Dake MD: Iliofemoral Deep Venous Thrombosis: Aggressive Therapy Using Catheter-Directed Thrombolysis. Radiology 1994: 191:487-94.
4. Bjarnason H, Kruse JR, Asiger DA et al: Iliofemoral Deep Vein Thrombosis: Safety and Efficacy During 5 Years of Catheter-Directed Thrombolytic Therapy. J Vasc Intervent Radiolo 1997: 8: 405-18.
5. Mewissen M: Report of the National Venous Thrombosis Registry, La Jolla, CA, September 1997.

X X X